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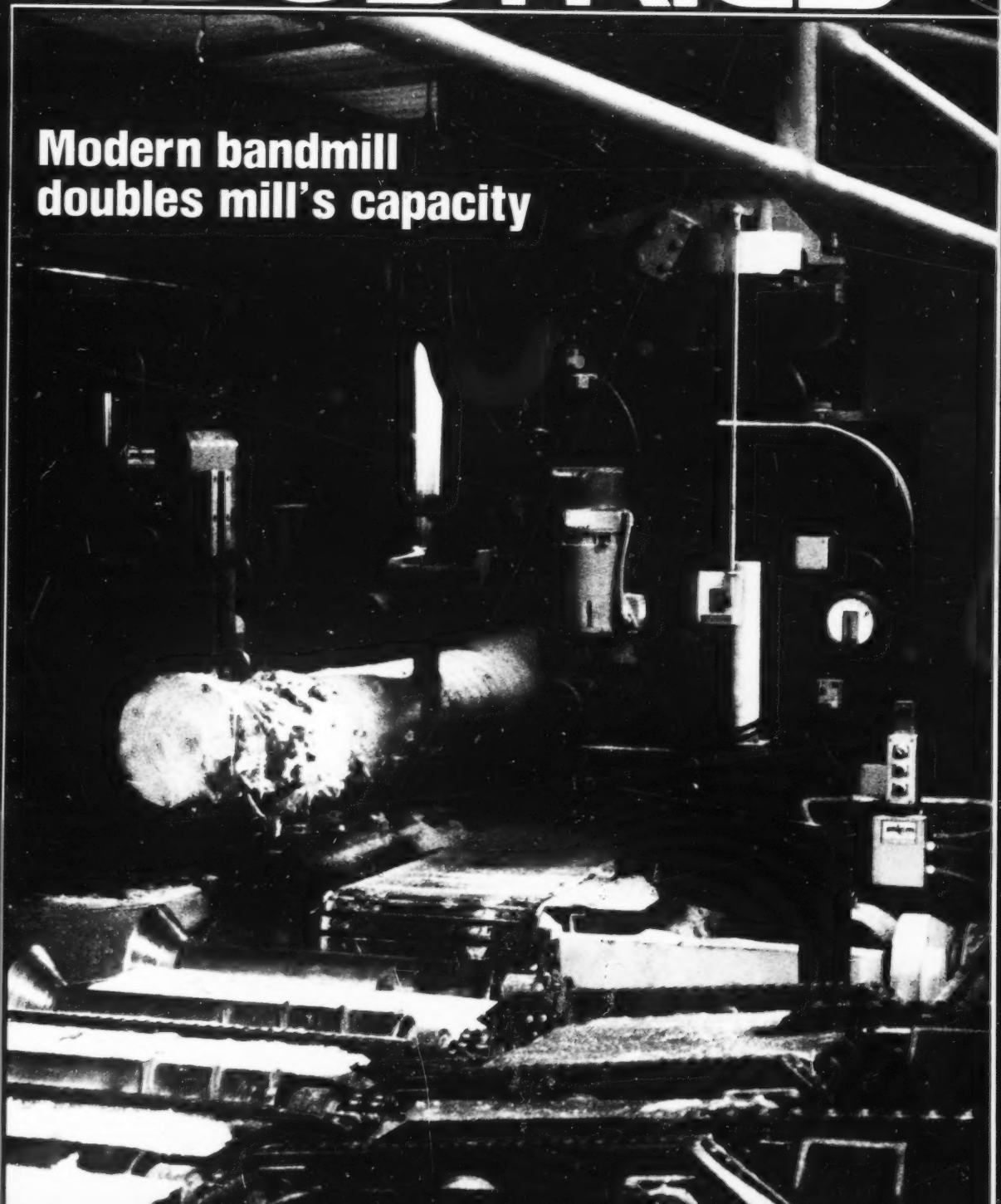
FOREST INDUSTRIES

LOGGING/PULPWOOD/FORESTRY/LUMBER/PANELS

Modern bandmill doubles mill's capacity



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Solid-wood sales contributed little to good financial performance of integrated corporations in 1984, which otherwise responded positively to lively paper market

Low prices depressed '84 corporate earnings

By David A. Pease

Atlanta, Georgia

Conventional wisdom as applied to 1984 financial performance of North American forest products corporations infers that successful profit levels were tied to the degree of integration into pulp and paper manufacture.

"Newsprint and coated paper were the exceptions in a year when markets for forest products were generally difficult." This masterpiece of understatement, on the cover of the British Columbia Forest Products Ltd. annual report, was an appropriate summary of the situation in the United States and Canada.

A year that generated record sales and earnings figures for several companies was also tagged as producing "profitless prosperity" for solid-wood producers. Demand continued to soar but excess lumber and plywood manufacturing capacity on both sides of the border held prices down.

Economic and political fallout has occurred:

- Activity to buy out of federal timber contracts following passage of contract termination legislation.
- Closure of many western sawmills and plywood plants, causing a spate of inaccurate rumors suggesting that the western industry is dead. (Vaudeville is dead. Chivalry may be dead. The industry in the West is not dead.)
- Movement by many corporations to sell, and by some others to buy, timberland, as a means of removing undervalued assets from the books and concentrating fee simple ownerships within economic reach of mills.
- Increased acrimony over Canadian lumber shipments into the U.S.

The first three items above have generated a substantial number of fourth-quarter writeoffs for past and projected losses, mill shutdowns for the most part, affecting earnings for the year.

Charting the numbers

The accompanying tables are based on sales and earnings as reported by the corporations, including the writeoffs, etc., and thus do not in all cases indicate performance of continuing operations.

The tables list a number of corporations heavily or wholly involved with manufacture of paper products as well as major integrated and solid-wood producers, to help illustrate relative financial strength. This expansion of our more traditional horizons recognizes also that we have a lively constituency of readers in the pulpwood industry, who are more appropriately concerned with the performance of paper companies than with housing starts.

Georgia-Pacific Corp. led the 1984 sales parade at nearly $6.7 billion and Weyerhaeuser Co. was at the top of the earnings column at $226 million. Both firms derived just under half their sales last year from solid-wood products. Seven companies were in the "top 10" in both categories and 16 corporations were on both "top 20" lists (see tables).

Most fourth-quarter writeoffs, pretax and after-tax charges for mill closures and timber contract buyouts have been reported in previous issues. They include: International Paper Co., $163 million; Georgia-Pacific, $160 million; Champion International Corp., $150 million; Boise Cascade Corp., $88 million; Weyerhaeuser Co., $44 million; Crown Zellerbach Corp., $30.1 million; Louisiana-Pacific Corp., $22.1 million; Southwest Forest Industries Inc., $10 million; and Willamette Industries, $5.2 million.

Where such charges were taken, adjustment of 1984 figures to reflect continuing operations would show better earnings than the numbers stated, and in the case of Champion International would erase the loss reported and replace it with earnings of $139 million. (Champion's numbers were jackstrawed further by its acquisition of St. Regis Paper Co. during the fourth quarter, which created a variety of additions and subtractions.)

Louisiana-Pacific broke the aforementioned rule relating profits to paper, incidentally: sales were up 12% and net income up 51% over 1983 in a year when building products represented 83% of total sales.

While earnings of Canadian corporations were generally improved over 1983, the industry's profit margin there was low. Western companies producing solid wood and market pulp suffered a one-two punch from two bad markets. Market pulp sales offshore suffered from a strong Canadian dollar relative

Canadian forest products corporations
1984 sales and earnings vs. 1983
(as reported, before adjustments, in millions of dollars, Canadian)

Company	Sales	Chg (%)	Earnings	Chg (%)
Abitibi-Price Inc.	2137.2	+29	70.1	+65
B.C. Forest Products Ltd.	1014.7	+13	9.2	NM
Canadian Forest Products	1029.5	+3	-28.3	NM
CIP Inc.	1476.0	+22	-11.7	NM
Consolidated-Bathurst Inc.	1623.0	+17	58.9	+137
Crestbrook Forest Industries	137.9	+9	0.9	NM
Crown Forest Industries Ltd.	740.8	+2	-4.9	NM
Domtar Inc.	2044.3	+12	89.5	+119
Donohue Inc.	438.6	+23	30.3	+222
Fraser Inc.	529.5	+21	3.5	-67
Great Lakes Forest Products	602.0	+22	17.8	NM
MacMillan Bloedel Ltd.	2127.6	+4	19.3	-19
Westar Timber Ltd.	361.4	+7	-3.6	+67

(NM—Not measurable)

to most foreign currencies and severe competition from Scandinavian producers.

Big, integrated corporations in eastern Canada were better positioned for profits with a product mix including newsprint and fine printing papers.

Circling the wagons

Not long ago, corporations were racing to diversify their interests into non-wood fields through acquisition of other companies. That trend has reversed, and now involves stepping back toward the traditional forest resource base through sale of unrelated divisions and subsidiaries. Georgia-Pacific sold its commodity chemical operations for $262 million in cash and securities, as but one example. "Asset review" is a term that appears frequently.

"We are concentrating our resources on businesses that we know and understand, with emphasis on segments that can perform in a superior manner," observed William T. Creson, Crown Zellerbach's chairman, president and CEO, at a recent security analysts' meeting in San Francisco.

Thus the integrated corporations have invested heavily in capital projects under the pulp and paper umbrella, but most capital investment on the solid-wood side of the industry has come from a very shallow purse. The most notable exceptions are the non-veneered structural panel plants being built in numbers by Georgia-Pacific and Louisiana-Pacific.

The year also saw persistent attempts by overseas interests to gain ownership of U.S. corporations.

- British financier Sir James Goldsmith, after failing to acquire St. Regis Paper Co. bid unsuccessfully last June for Continental Paper Inc., was rumored in September to be accumulating Owens-Illinois Inc. stock (blocked by a special issue of preferred stock) and by March 1985 had purchased an 8.6% interest in Crown Zellerbach.
- Jefferson Smurfit Group Ltd., an Ireland-based papermaking concern, bought 9.3% of Southwest Forest Industries stock in May 1984 but merger plans were terminated in July.
- Australian Rupert Murdoch, whose publishing empire spans three continents, purchased 5.6% of St. Regis in June before a takeover bid the following month was rejected. In August, St. Regis accepted a bid from Champion International to buy 60% of its shares for $1.84 billion.

The capacity overhang

Western mill closures as a quick cure for industry overcapacity and poor profits constitutes a subject essential to any review of corporate financial performance in 1984.

Euphemisms include "readjustment" and "realignment." Western mills have been most vulnerable to closure as timber and labor costs compare unfavorably with the South, and many mills are old and to some degree obsolescent.

A year that generated record sales and earnings figures for several companies was also tagged as producing 'profitless prosperity' for solid-wood producers

Efficiency, or lack thereof, was not a universal yardstick, however. Prominent among closures was International Paper's Gardiner, Ore., sawmill, recently rebuilt to high-tech standards at a cost upward of $40 million.

Boise Cascade, Champion International, Weyerhaeuser, Potlatch and Crown Zellerbach were among other big names on the list of western mill shutdowns.

Closures to "adjust" industry capacity also meant, as one corporate official remarked privately earlier in the year, that the money guys have seized control of important corporate decisions from production people. Bankers or corporate financial officers, depending on cases, have declared the companies simply can't afford to make lumber and plywood in their expensive-to-run western mills.

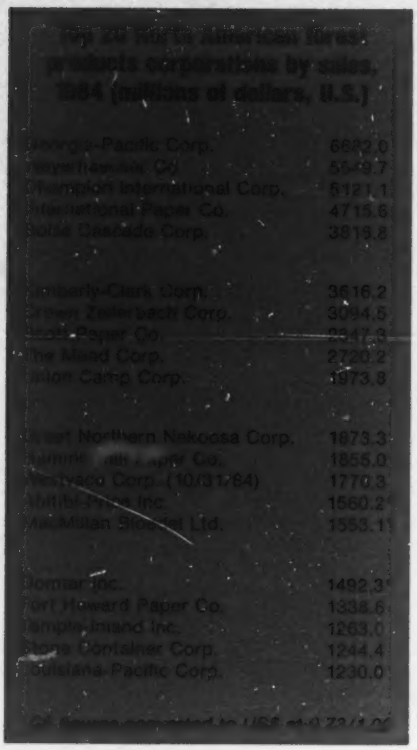
Portland, Ore., economist Daniel L. Goldy agrees. "Why are so many mills shutting down? Why are the closures particularly concentrated among the big companies? The easy answer, of course, is that companies shut down their mills when they lose money or are not obtaining a sufficient return on their investment," he said March 19 at the 1985 Economic Outlook Conference in Portland.

"Big companies, with mills and profit centers in other parts of the U.S. and Canada, don't have to stay in the Pacific Northwest and suffer. They can shut

U.S. forest products corporations
1984 sales and earnings vs. 1983
(as reported, before adjustments, in millions of dollars, U.S.)

Company	Sales	Chg (%)	Earnings	Chg (%)
Bohemia Inc.	84.5	+12	-4.3	NM
Boise Cascade Corp.	3816.8	+11	69.6	+15
Bowater Inc.	887.7	+17	72.1	+90
Champion International Corp.	5121.1	+20	-6.0	NM
Chesapeake Corp.	350.2	+28	22.1	+77
Consolidated Papers Inc.	686.3	+20	80.6	+64
Crown Zellerbach Corp.	3094.5	+15	86.9	-1
Federal Paper Board Co.	637.4	+12	37.1	+197
Fort Howard Paper Co.	1338.6	+70	133.1	+24
Georgia-Pacific Corp.	6682.0	+11	119.0	+13
The P.H. Glatfelter Co.	310.9	+21	63.2	+207
Great Northern Nekoosa	1873.3	+20	119.9	+43
Hammermill Paper Co.	1655.0	+14	55.9	+72
International Paper Co.	4715.6	+8	120.1	-53
Jefferson Smurfit Corp.	678.1	+13	24.5	+143
Kimberly-Clark Corp.	3616.2	+10	225.0	+19
Louisiana-Pacific Corp.	1230.0	+12	42.2	+51
The Mead Corp.	2720.2	+15	139.3	+227
Mosinee Paper Corp.	200.2	+55	8.9	+24
The Pacific Lumber Co.	280.7	+17	44.6	+57
Pentair Inc.	545.4	+71	21.2	+78
Pope & Talbot Inc.	320.8	+14	-0.6	NM
Potlatch Corp.	993.9	+10	49.6	+22
Scott Paper Co.	2847.3	+5	187.0	+51
Sonoco Products Co.	740.9	+11	42.5	+27
Southwest Forest Industries	777.4	+22	4.1	NM
Stone Container Corp.	1244.4	+90	33.7	+1062
Temple-Inland Inc.	1263.0	+7	102.7	+113
Union Camp Corp.	1973.8	+17	181.5	+37
Westvaco Corp. (10/31/84)	1786.3	+18	130.0	+107
Weyerhaeuser Co.	5549.7	+14	226.2	+10
Willamette Industries Inc.	1181.9	+13	61.0	+174

(NM—Not measurable)



down operations here and continue to operate from their other facilities where conditions are more favorable," Goldy said.

Does padlocking a mill actually reduce industry capacity, or is the facility just waiting to be re-opened in better times? "A plywood mill is a plywood mill until you scrap it," declared Bernard E. Fuller of Data Resources Inc., Lexington, Mass., during the recent Particleboard/Composite Materials Symposium at Washington State University. "That capacity remains on the books until the mill is burned and the machinery is melted down." The laughs were forced.

Closures, whether temporary or for real, do not mean the industry is giving the West to the environmentalists and the state unemployment agencies. Not on your Uncle Sven's misery whip. Emerging from the confusion following the late-1984 and early-1985 shutdowns are these considerations:

• Look for new names and faces to surface. A few business-oriented entrepreneurs are collecting bankrupt mill assets at fire-sale prices and building small-scale, multi-plant operations.

Capital costs are far below replacement value, creative compensation and work-rule programs provide an alternative to union organization, and timber purchases can be approached without inheriting overbid national forest contracts.

Thus with break-even points targeted lower than they were for previous owners, there is elbow room to upgrade, run below capacity and/or experiment with specialized products and market segments.

• Existing independent western companies will assume a stronger position. Without the option of shifting operations to a timber and manufacturing base elsewhere, these corporations have to fish or cut bait on the basis of resource and economic conditions as they exist in the West. It will be rough going for a while, but don't for a moment count out the Bohemias, Willaminas, Pope & Talbots, Gilchrists, Fourplys and others of similar scale.

Look also for companies in this category to ride point in the area of manufacturing and process control innovation. They have the financial resources and the incentive. With comparatively fewer options open, production efficiency rises on the profit priority list.

Goldy's comments: "The smaller companies—the so-called independents—don't have that luxury (of moving). They either operate here, where their *only* plants are located, or they don't operate at all. Consequently, the smaller companies tend to fight harder to stay alive, invest more in the newest technology to become more competitive, and yell louder at the extra burdens placed on them by an unthinking or uncaring federal bureaucracy."

• Long-term corporate strategy considers the timber resources of the West as essential. Big corporations may appear somnolent in the West, but as Andy Capp might have told Flo when she interrupted his nap on the living room couch: "I'm not sleeping, I'm just bunching my muscles."

Corporate leaders recognize the immense volume of fiber contained in western forests, and the concentration of high-grade timber. A variety of observers have suggested that distribution of raw material sources, manufacturing facilities and market areas will eventually equalize nationally. In the meantime, unfortunately, the short-term displacement will bring increased unemployment and depressed economies to western communities historically dependent on mill and logging jobs.

"If you can survive for another five years, things should look better," L. L. Stewart, chairman of Bohemia Inc., remarked during a workshop at the recent FOREST INDUSTRIES Clinic and Machinery Show in Portland, Ore. He cited Western Wood Products Assn. figures that show an estimated 650 sawmills operating in the region at the end of 1984, versus 818 in 1979. "However, due to gains in productivity, lumber production capacity is estimated to be the same as in 1979," Stewart said.

"We cannot undo the technology. The capacity is here and the plants are in place," observed Peter Vajda, president of Columbia Engineering International Ltd., at the WSU Particleboard/Composite Materials Symposium. "We might as well confess our sins of being too successful."

The swinging pendulum

According to Goldy, prosperity will return to the forest products industry in the West because Canada and the South are cutting out their resources.

"In B.C., it is estimated that a 30% cutback in harvest will occur by about 1990, and most of the other Canadian provinces are in as bad shape or worse," Goldy asserted. "In the South, for every 10 acres of southern pine timber harvested, on the average only one is replanted. Two or three acres may naturally restock to pine, but six to seven of that 10 acres is replaced by brush or scrub hardwoods."

Goldy predicted such practices will bring significant harvesting cutbacks sometime during the 1990s.

"Looking down the road, the Pacific Northwest is going to be the major source of softwood timber to meet the country's needs. The bulk of our forest resource is on a sustained-yield basis, and, if anything, it is being underharvested by the Forest Service." Industry timberland in the West, overcut in recent years, faces a 15 to 20-year gap before new growth reaches merchantable size, Goldy said.

The problem, Goldy continued, is that about 75% of merchantable timber in the West, owned by the federal government, is managed "by bureaucrats in Washington, D.C., who make the big decisions and leave it to their regional representatives to implement them and take the heat."

There are good arguments to be made that the South isn't in as bad shape as Goldy contends, although a region-wide harvest/reforestation imbalance is acknowledged. Mills are well-situated to serve major market areas, the immense southern pine forest resource continues as the focus for industry lumber and plywood expansion, and hardwood forests east of the Great Plains have fueled an all-new industry sub-section—waferboard and oriented strand board.

Setting aside for the moment the huge pulp and paper industry in the South and concentrating only on saw-log-quality timber, however, one begins to appreciate the long-term value of western forests to the industry.

In the South, industry and landowners alike continue to wrestle with the means of unlocking the potential of non-industrial private forest lands. The quick-rotation pine plantations of forest products corporations are directed at feeding the appetites of pulp and paper mills, with sawlogs a high-grade by-product of tree-length merchandisers and simple in-woods sorting operations.

As in the West, diminishing natural stands remain the basis for sawlog and peeler log supply. Development of yet more efficient small-log lumber and veneer systems will intensify the competition for pulpwood, driving up raw material prices and altering utilization patterns.

Efficiency: two-edged sword

As noted elsewhere in this article, improvements in production efficiency have increased capacity at a rate which has more or less offset lumber and plywood mill shutdowns. Yet continued improvements in productivity and product yield represent a bicycle the industry must pedal faster and faster in order to remain upright.

"A good many of the survivors made some strategic management moves during that (1980-82) recession period," said William A. Whelan, president and CEO of Pope & Talbot Inc., at the Economic Outlook Conference in Portland. "They shored up their productivity. They did so well, as a matter of fact, that we are now almost certain that the western lumber producing capacity in 1985 exceeds our capacity of those days of halcyon markets in 1978.

"We're not even sure what our true capacity is, and we won't until it is tested. Boy, would we like to see it tested!"

Individually, mill owners producing commodity items must go high-tech to survive. Collectively, this exacerbates the overcapacity problem.

"We must embrace the new technologies that improve our capabilities for product quality control. We must use scanning, predetermined sawing programs and new sawing techniques to extract the maximum value from every log. A few years ago it would have been laughable to talk of sawing accuracies in thousandths of an inch. Today, it's mandatory for survival," Whelan stated.

Rust, a friend once remarked of his English car, never sleeps. In today's context, neither does technology. Despite the unsettling aspect of mill closures, the West remains a good prospect for high-tech modifications.

Products: more are better

Within the solid-wood segment, the more successful companies financially were those not restricted to one or two basic products. Examples from annual reports indicate non-veneered construction panels, high-value plywood and panel specialties, and treated southern pine lumber are three bonus categories.

"The earnings strength of our building products group lies in product diversity. We are not dependent on lumber and plywood, for instance, as are many of our competitors."—Temple-Inland Inc.

"We continued to improve the efficiency of our use of timber resources by expanding production and distribution of oriented strand board and waferboard for commodity uses such as roof and floor decking and sidewall sheathing and converting the production of our plywood plants to higher-margin specialties."—Georgia-Pacific.

"The attractive profit margins of Waferwood (brand waferboard), industrial particleboard, MDF and hardboard contributed to good profits in other panel products in 1983 and 1984. In 1984, Waferwood profits were bolstered by improving the product's configuration and increasing its stress rating. This new 'oriented' Waferwood product commands a higher price since the product is now more versatile."—Louisiana-Pacific.

"Chesapeake's lumber shipments increased 77%, due primarily to the expansion of our treated pine and hardwood lumber operations. Chesapeake is committed to increasing the production of wood products in its operating area to maximize the value-added potential of available wood."—Chesapeake Corp.

"Oriented strand board (Oxboard) shipments out of Minnesota were 45% ahead of 1983, helping to mitigate a 15% decline in plywood and veneer shipments for the year. One of the brighter spots in an otherwise difficult year for wood products was the operating performance of the Minnesota oriented strand board plants."—Potlatch.

The year in review

Here are some baseline statistics: Softwood lumber consumption in the U.S. last year totaled a record 42.758 billion bd ft, of which U.S. mills produced 30.791 billion bd ft. Structural panels (softwood plywood, waferboard and oriented strand board) also set a production record at 21.968 billion ft^2 (⅜-in. basis). Housing starts totaled 1,753,500 units.

For 1985, U.S. trade associations project softwood lumber consumption

will rise slightly to 42.948 billion bd ft, production will follow at 31.349 billion bd ft, structural panels will slide to 21.6 billion ft^2, and housing starts will fall to the 1.65 to 1.75 million area.

Annual reports take up the year's chronicle:

"Early in the year, anticipating a favorable market, sawmills produced at high rates, and the distribution network accumulated inventories. But in the spring, rising interest rates and prolonged cold, wet weather discouraged builders, causing an abrupt inventory correction and a sharp break in prices. Meanwhile, Canadian producers, spurred by the strong U.S. dollar and aided by low-cost government timber, flooded the U.S. market and captured 31% of volume (up from 19% ten years ago)."—Southwest Forest Industries.

"By May, it had become apparent that production capacity had expanded very rapidly during the previous five years, and that, even with moderately strong activity in housing, commodity lumber and plywood capacity now far exceeded demand. Prices dropped back, and remained at depressed levels through the rest of the year, with only moderate improvement at year's end."—Weyerhaeuser.

"Without a significant change in the level of housing starts and without government action to limit Canadian lumber imports, we do not foresee a meaningful improvement in market conditions that would warrant the continued operation of all our wood products facilities."—International Paper. ■

Japan's tariff structure has caused considerable industry outcry, but it is not the only reason for a U.S. trade deficit with Japan. Other obstacles exist

Can U.S. expand forest products exports to Japan?

By Roger A. Sedjo

Washington, D.C.

In January 1985, President Reagan and Japan's Prime Minister Nakasone met in Washington, D.C., to discuss issues of common concern. At that meeting, President Reagan listed four priority areas where the U.S. is a highly competitive producer but believes it is denied full access to Japanese markets: telecommunications, computers, drugs and medical equipment, and forest products.

Forest products have made great progress in getting on the political agenda. Just two years earlier, following the first Reagan-Nakasone meeting in Washington, the newly formed U.S.-Japan Advisory Commission was charged with examining a wide array of issues, including bilateral trade. Initially, forest products trade was not even considered. It was only after the Commission learned that U.S. forest product exports to Japan are substantial—now running about $2.5 billion annually (compared with $6.5 billion in U.S. agricultural exports), with about $1.9 billion in solid wood products and another $0.6 billion in pulp and paper products—that forest products became an area of major interest.

To understand the issue, one must understand the structure of Japanese international trade, particularly imports. There is general awareness that Japan is a resource-poor country. As such, its basic *modus operandi* in the period since World War II has been to import natural resources which are processed and either consumed domestically or exported to generate earnings, which are then utilized to finance additional resource imports.

To a large extent, the same trading pattern has existed in forest products except that, for the most part, Japanese exports of processed forest products have been minor. Most of the products have been consumed domestically.

This pattern is not particularly surprising. Japan is a relatively heavily forested country. Historically, Japan drew from those forest resources to meet domestic wood needs. Even today, about 40% of the wood processed by the Japanese economy originates in Japan.

In the early postwar period, Japan found that foreign wood supplies in the form of logs could supplement its domestic resources. Initially, the foreign supplies were from the Philippines and other Asian-Pacific countries. By the mid-1960s, the U.S. and the USSR both were becoming major suppliers of logs.

During this period, Japan continued to develop its wood processing industry. Japanese wages were low in the early postwar period, and many forest products require labor-intensive production processes. However, after the onset of much higher wages in the 1970s, this policy came under serious question.

Japan imports massive quantities of logs and wood chips (Table 1). For these categories of raw wood, Japanese imports account for between 45% to 83% of total world imports. By contrast, for most processed products, Japan accounts for 10% or less of world imports.

The U.S. is a major exporter of both processed and unprocessed wood to Japan, accounting for almost 50% of the country's softwood log imports and over one-third of its chip imports (Table 2). Overall, the U.S. accounts for about one-fourth of Japanese imports of unprocessed wood. The U.S. is also a major source of Japanese imports of processed solid wood, accounting for about 18% of total Japanese imports. However, since Japanese import levels are relatively modest, the total volumes of U.S. processed goods are small.

Exporting to Japan involves four types of obstacles: 1) tariffs, 2) nontariff barriers, 3) differences in standards, and 4) institutional or "invisible" barriers.

In recent years, two important rounds of trade negotiations have taken place: the Kennedy Round (1963-1967) and the Tokyo Round (1973-1979). The result of these two rounds was the virtual elimination of tariffs on most solid wood products, with the notable exception of wood panels and veneers. In wood panels, the Japanese have tenaciously resisted reducing tariffs that protect an already depressed industry. On the pulp

TABLE 1—Japan's share of major world wood products imports, 1980

Product	World volume imports	Japan's volume imports	Japan as % of world
Solid wood (1000 m³)			
Chips and particles	19,153	15,936	83.2
Sawlogs, conifer	27,930	17,172	61.5
Sawlogs, nonconifer	42,178	19,202	45.5
Pulpwood	19,922	1,136	5.7
Sawnwood, conifer	62,801	4,892	7.8
Sawnwood, nonconifer	12,702	555	4.4
Veneer sheets	1,760	111	6.3
Plywood	5,908	113	1.9
Particleboard	5,716	75	1.3
Fiberboard	2,014	3	0.1
TOTAL	200,084	59,195	29.6
Fiber (metric tons)			
Newsprint	12,721	127	1.0
Pulp	20,410	2,206	10.8
Paper, paperboard	38,230	800	2.1
TOTAL	71,361	3,133	4.4

SOURCE: Food and Agricultural Organization of the United Nations, "Yearbook of Forest Products Statistics," 1981, Rome.

TABLE 2—Japanese market for selected wood products and U.S. participation, 1980

Product	Total Japanese consumption (million US$)	Total Japanese imports (million US$)	Total Japanese imports as % of consumption	U.S. exports (million US$)	U.S. share of Japanese imports (%)	U.S. share total Japan consump. (%)
Unprocessed						
Softwood logs	5,405	2,727	50.5	1,291.0	47.3	23.9
Hardwood logs	3,577	2,968	83.0	10.0	0.3	<0.01
Chips	1,767	951	58.9	359.0	37.7	20.3
TOTAL	10,749	6,646	62.7	1,660.0	25.0	15.4
Processed						
Softwood lumber	7,546	1,038	13.8	221.0	21.3	2.9
Hardwood lumber	2,447	188	7.7	9.0	4.7	<0.01
Plywood	6,000	33	0.5	2.0	6.1	<0.01
Veneer (total)	N.A.	25	N.A.	0.6	2.4	N.A.
Softwood	N.A.	N.A.	N.A.	0.2	N.A.	N.A.
Hardwood	N.A.	N.A.	N.A.	0.4	N.A.	N.A.
Particleboard	200	14	7.0	5.0	35.7	2.5
TOTAL	16,193	1,298	8.0	237.6	18.3	1.5

Japanese plywood figures are for both hardwood (now almost entirely) and softwood plywood.

SOURCE: United Nations Food and Agricultural Organization for Japanese statistics; and U.S. Department of Commerce for U.S. statistics.

and paper side, the tariffs have been reduced but are pervasive.

The Japanese tariff structure is characterized by "escalation." The higher the degree of processing, the greater the tariff or other restrictions. It should be noted, however, that escalation is a fairly common practice and is not unique to forest products or to Japan.

Aside from tariffs, a variety of nontariff barriers exists. These include restrictions that are designed to limit imports, e.g., prohibitions or quotas, or restrictions aimed at health or sanitary considerations. It is often difficult to determine the real purpose of some of the restrictions.

Examples of these include the Japanese lumber sorting requirements of the 1970s, whereby all imported lumber was resorted and regraded, and the more recent restriction of plywood due to "white pocket." The resorting practice was discontinued in the late 1970s by mutual agreement. "White pocket," a blemish found on plywood made from old-growth Douglas fir, caused the plywood to fail to meet Japanese standards even though it was structurally adequate. This difficulty has been resolved by a mutually agreed upon adjustment in this standard.

Other differences in standards and tastes have resulted in restricting imports. For example, Japanese housing construction uses a post and beam approach that is quite different from the North American platform frame construction technique. The different construction techniques result in different lumber standard requirements.

The Japanese technique also puts a premium on the color of the wood (white wood is preferred), its freedom from knots and other defects, and the aesthetic quality of the wood grain. Much of the lumber used for residential construction in Japan is custom-sawn by the mill.

For plywood, there are differences in the standard panel size, with the North American size being 4x8, while the Japanese standard is 3x6. For some paper products there are differences in the shade of color of imports that are less preferred by the Japanese.

In addition to the above restrictions, there are barriers of an institutional nature that limit the degree to which imports can penetrate Japan's market. For example, the Japanese distribution system is extremely difficult and complex, and the inability to move imported, processed products into that system restricts imports. The traditionally close relationships between producers, distributors and banks tend to exacerbate the difficulties of access to the distribution system and act as an "invisible barrier" to import penetration.

More generally, the Japanese have a tolerant view toward firm cooperation and cartelization, particularly for distressed industries. Japanese importers' associations, which sometimes function to maintain "orderly markets," clearly can be an impediment to imports. The 1979 "depresssed industries law," which allows for cartelization of struggling industries accompanied by various governmental subsidies, can further deter foreign competition.

The effects of these arrangements on forest products imports are likely to be substantial since at least three forest products categories are officially classified as depressed: plywood, corrugated cardboard and lumber (regionally). For these industry groups, both subsidies and subtle forms of import limitations are likely to be exercised.

The question is, suppose tariff and other artificial barriers were removed—how much difference would it make? Overall, the effect would probably be modest. Clearly, trade restrictions are only part of the overall problem of a U.S. trade deficit with Japan. For example, the strong dollar also surely inhibits U.S. exports.

Nevertheless, the potential in some wood products groups could be significant. Japan is one of the world's leading wood-using economies. Japanese wood panel imports in particular would likely be substantial in the absence of the tariff and other restrictions. Also, U.S. pulp and paper export prospects appear increasingly favorable as the Japanese competitive position in a number of products continues to erode.

Taking the long-term view, the Japanese comparative advantage in both solid wood processing and in paper and pulp production has declined and will probably continue to do so. Given that this is the case, how might Japan be expected to respond? Two points are worth noting:

1. In the early postwar period, the Japanese tended to be pragmatic and to adopt policies that allowed orderly retreats and thereby gradual shifts out of declining industries.

2. As represented by the "depressed industries act" of 1979, in recent years this process seems to have been replaced by a policy of long-term retrenchment and protection of declining industries.

In this context, the U.S. needs to continue pressing Japan to further open these markets to foreign imports—especially those industries which are depressed and in which Japan must acknowledge a competitive disadvantage. To that end, perhaps the best initial objective is the further reduction of tariffs on all forest products with a follow-up objective of reducing the nontariff barriers. ■

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